Recent Progress in Cervical Oncology

Widespread use of the Papanicolaou smear for more than ten years has been associated with a reduction in deaths from uterine cancer in this country. It is not certain that the reduction is attributable to this screening device, since the decline began before the introduction of Papanicolaou smears; but certainly the vaginal smear has proved that early detection of cancer of the cervix is important to effective treatment. Further, attention has been focused on the early pathologic changes of the cervical epithelial abnormality and on the value of periodic gynecologic examination. As a result of this trend, the first large scale epidemiologic study of the behavior of cervical dysplasia has been reported[1] and cohesive theories, well founded in clinical observations, suggest the origin of cervical malignancy in fields of dysplasia or subcylindrical cell anaplasia.[2] There is presumptive indication that the initial size of such dysplastic fields may determine the ultimate size of the malignant lesion, and that multicentric origin, even for such early lesions, is relatively common.

Attempts to decrease the ultimate incidence of carcinoma of the cervix through destruction of areas of cervical dysplasia, and the replacement of thermocoagulation with tissue freezing are being investigated but no conclusive evidence of their benefit is yet available.

The difficulty of applying objective criteria to the determination of whether early carcinoma of the cervix is invading cervical stroma has led many investigators to employ a diagnostic category consisting of malignant lesions of limited size with likely early invasion. The evaluation of this group has proved difficult because of problems of adequate follow-up, but studies to date indicate lymph node metastasis in less than five percent of such cases, with relatively low incidence of recurrence.[3]

An important step in establishing the possible cause of cervical cancer has been the demonstration of association of type II Herpesvirus hominis with cervical malignant change.[4,5] The presence of extensive chromosomal abnormality in association with early carcinoma has been firmly established. Increasing attention is being directed toward steps necessary to assure the availability of the cervical screening technique to a larger share of the population at risk.[6]

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Amniocentesis in the Assessment of Fetal Maturation

Amniocentesis has become a routine procedure in the management of the Rh-immunized mothers. With increasing experience, it is evident that the maternal and fetal risks from amniocentesis are minimal and that amniotic fluid analysis is an acceptable and rational diagnostic method which can be applied to a number of clinical problems. One such application is the assessment of fetal maturation when a pre-term delivery may be indicated.

Possibly the most useful test for maturation is the determination of amniotic fluid creatinine concentration. The concentration is known to increase progressively after the 20th week of pregnancy, and the finding of 2 mg per ml of amniotic fluid indicates a gestational age of at least 37 weeks, as does a ratio of 3 to 1 or greater between the amniotic fluid creatinine and the maternal serum creatinine.

Amniotic fluid cytology is also of value as an indicator of fetal maturation. Two findings which correlate with a gestational age of at least 36 weeks are:

- A minimum of 20 percent of the cells present

in amniotic fluid contain cytoplasmic lipid which stains orange with Nile blue sulfate dye.
• A marked preponderance of cornified and precornified over parabasal and intermediate squamous cells in a Papanicolaou-stained smear of amniotic fluid.

Because there is a small false positive and a somewhat larger false negative component to amniotic fluid measurements, these tests must be correlated with other clinical findings. When properly interpreted, they make it possible to terminate pregnancy before term with reasonable assurance that the fetus is mature.

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"Come and Go" Aspiration Abortion

Today, termination of first trimester pregnancy (therapeutic abortion) is becoming the most common surgical procedure performed on women. Significant reflections of this revolution are observed in the recent decline, not only in the numbers of septic incomplete abortions but also in maternal mortality due to abortion.

"Come-and-Go" aspiration abortions performed by trained personnel in hospital environs, adjacent to facilities prepared for surgical emergencies, show no increase in morbidity compared with admissions to the hospital for presurgical preparation and observation for 12 to 24 hours after abortion. The outpatient abortion is not only safe, efficient, effective, and minimally embarrassing to the patient, but also offers: (1) abbreviated clerical admissions procedures; (2) elimination of needless enemas, douches, and vulvar shaving; (3) minimal use of hospital personnel who can then attend acutely ill patients or those recovering from major operations; (4) anonymity by surgical scheduling through identification number or attending physicians; and (5) short convalescence at home with maximum privacy and minimum regimentation.

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Clomid® in the Treatment of Oligo-Amenorrhea

Since its release several years ago, Clomid® (clomiphene citrate, Merrill) has proven to be a safe and highly effective drug for the induction of ovulation. Although the package insert lists its sole indication as the "induction of ovulation in women with ovulatory failure who desire pregnancy," numerous reports from around the world cite Clomid's efficacy in the treatment of irregular or infrequent menses.

In the absence of thyroid and adrenal dysfunction and when there is no decided pituitary or ovarian insufficiency, one or two tablets of Clomid daily for up to five days will result in ovulation within 10 days in over 70 percent of cases. Side effects such as multiple ovulation, cystic enlargement and ovarian pain are infrequent and are usually the result of overstimulation of the ovaries. When pregnancy occurs, there is no significant increase in fetal abnormalities but the spontaneous abortion rate is slightly higher than normal. For this reason it is recommended that Clomid-induced pregnancy be supported with progesterone and close supervision. When precocious or menopausal ovarian failure or pronounced hypopituitarism exists, induction of ovulation with Clomid is rarely successful.

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